

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number:  13681-0012001
<p>I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Mail Stop AF, Commissioner for Patents, Box 1450, Alexandria, VA 22313-1450.</p> <p>_____</p> <p>Date of Deposit</p> <p>_____</p> <p>Signature</p> <p>_____</p> <p>Typed or Printed Name of Person Signing Certificate</p>	Application Number  10/600,182	Filed  June 20, 2003
	First Named Inventor  Bach	
	Art Unit  1651	Examiner  Sandra E. Saucier
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a Notice of Appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 45%;"> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record <u>61,358</u> (Reg. No.)</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p> </div> <div style="width: 45%; text-align: right;"> <p>_____ /RSMcQuade/ Signature</p> <p>_____ Ryan S. McQuade, Ph.D. Typed or printed name</p> <p>_____ (617) 542-5070 Telephone number</p> <p>_____ October 29, 2009 Date</p> </div> </div> <p style="font-size: small; margin-top: 20px;">NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below'.</p>		
<input type="checkbox"/> Total of <del>88</del> forms are submitted.		

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Bach et al.	Art Unit	: 1651
Serial No.	: 10/600,182	Examiner	: Sandra E. Saucier
Filed	: June 20, 2003	Conf. No.	: 8996
Title	: PHARMACEUTICAL USE OF NITRIC OXIDE, HEME OXYGENASE-1 AND PRODUCTS OF HEME DEGRADATION		

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicants request review of the rejection in the above-identified application of claims 18-20, 24-30, and 33-53 for alleged lack of enablement. Applicants respectfully submit that the rejection is based on a substantive error of law, leading to an incorrect finding of lack of enablement. The error of law relates to a misapplication of the standard for enablement in that the Office has required evidence of synergy among the claimed steps.

I. The Office Has Erroneously Required a Synergistic Effect

The claims currently under examination recite treatment of an organ recipient with a pharmaceutical composition comprising nitric oxide (NO) and a pharmaceutical composition comprising carbon monoxide (CO). See, e.g., pending claim 18. The claims recite that the treatments administered are sufficient to enhance survival or function of the transplant. No synergistic or additive effect is recited by the claims.

However, the Office in this case is apparently requiring some evidence of a synergistic or additive effect to find that the claims comply with the enablement standard. For example, in rejecting the claims for an alleged lack of enablement, the Office Action mailed April 30, 2009 (hereinafter, "the Office Action") states:

The issue is: have applicants have [*sic*] provided evidence that their claimed method, which is the co-administration of CO and NO to the recipient of the transplant has a positive effect on the success of the transplantation which is more than the administration of CO or NO alone.

Office Action at page 5. The Office Action further states:

A synergistic effect is not required to be present in the claim language. However, if the combined treatment of NO and CO to the recipient has no

increased effect over the effect obtained with NO or CO administer [*sic*] individually, there are enablement issues present with the claimed method because the claimed method cannot be practiced with a reasonable expectation of success over the scope of the claim, i.e. with humans.

Office Action at pages 6-7. The requirement for a synergistic or otherwise increased effect is contrary to what is required by law. Rather, the test of enablement is whether a person of skill in the art could make and use the claimed invention without undue experimentation. In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). A synergistic or additive effect is not required for enablement. See Ex Parte McOsker, Appeal No. 1996-3016 (BPAI 1996) (rejection for alleged lack of enablement overturned because no legal authority requires claims to be limited to a synergistic result to comply with the enablement requirement); Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1549 (Fed. Cir. 1983) (“synergism . . . is not required for patentability”).

Applicants have provided evidence that each of NO and CO alone are suitable for therapeutic use in transplantation methods. See Amendment in Reply to Action of August 11, 2008, filed on February 11, 2009 (hereinafter, “the Reply”), at pages 10-12. Further, the present application provides substantial evidence that NO and CO can work in tandem to provide cytoprotection. Application, paragraphs [0193]-[0221]; see also the Reply at pages 12-13. Additionally, the specification provides significant guidance regarding the administration of NO and CO to a transplant recipient. See, e.g., application, paragraphs [0047]-[0059] (“Use of Nitric Oxide”); paragraphs [0088]-[0104] (“Carbon Monoxide”); and paragraphs [0105]-[0110] (“Combination Therapy”). In view of the prior art regarding organ transplantation, the guidance in the specification regarding administration of NO and CO, the level of skill in the transplant field, and what was known in the art regarding NO and CO, a person of ordinary skill in the art would be able to carry out the methods recited in the claims without undue experimentation.

## II. Conclusion

The Office's rejection of claims 18-20, 24-30, and 33-53 for alleged lack of enablement is based on a clear error of law. The Office has erroneously required synergy between NO and CO in treatment of transplant recipients to comply with the enablement standard. Such a requirement is contrary to the law that an applicant must merely teach one skilled in the art how to make and use the claimed invention. Applicants therefore request withdrawal of the rejection.

Applicants do not concede any positions of the Office that are not expressly addressed above, nor do Applicants concede that there are not other good reasons for patentability of the presented claims or other claims.

This Request is being submitted with a Notice of Appeal and the required fee. Please apply any required charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 13681-0012001.

Respectfully submitted,

Date: October 29, 2009

/RSMcQuade/

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